

DICTATOR RTS Tube Door Closer

The "Invisible" Door Closer

The DICTATOR RTS tube door closer is built into the door and therefore is as good as invisible. The joint can only be seen when the door is open.

The DICTATOR RTS tube door closer is often used on **outside gates** such as garden entrance gates, admission gates to industrial plants and admission control gates. These gates normally do not have a frame above the door where the lever of an overhead door closer could be fixed. Furthermore the **concealed fitting** protects the door closer from atmospheric conditions and makes it almost **vandal proof**.

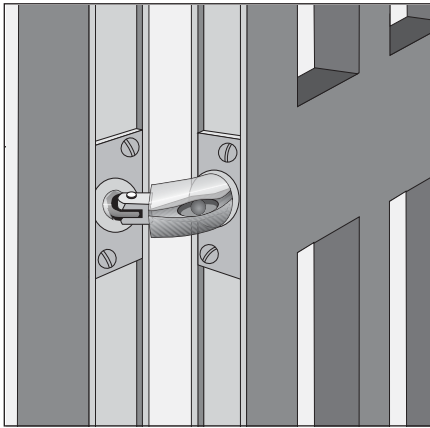
The tube door closer is especially suitable for aluminium and steel doors/gates. It can also be fitted into the profiles of existing doors. For wooden doors of minimum 40 mm thickness the tube door closer can be furnished with special fitting plates.

The tube door closer can be used with different hinges because its abrasion-proof plastic joint is flexible. However, certain dimensions and requirements described on the following pages have to be observed. Depending on the type of the hinges and the position of the pivot point the doors/gates can be **opened** up to **180°**.



Technical Data

Material	steel
Opening angle	max. 180° depending on the hinges/door
Weight of the door	up to 80 kg
Height of the door	up to 2500 mm
Width of the door	750 mm to 1150 mm
Types of doors	steel, aluminium and wooden doors
Closing speed	adjustable

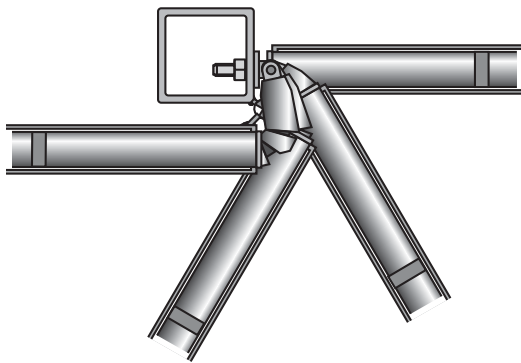


RTS d and RTS e Tube Door Closers

The DICTATOR tube door closers RTS d and RTS e are designed for steel and aluminium doors. Their front plate is fixed with 2 M8 screws to the door. The RTS d and RTS e only differ in the position of the holes of the front plate. Due to its fixing holes the type RTS e can be used to replace the tube door closer GEZE ROR TS 450.

In case of aluminium doors the door closer is normally fitted into the bottom profile of the door; with steel doors it is fitted either to the top or the bottom profile.

Operation



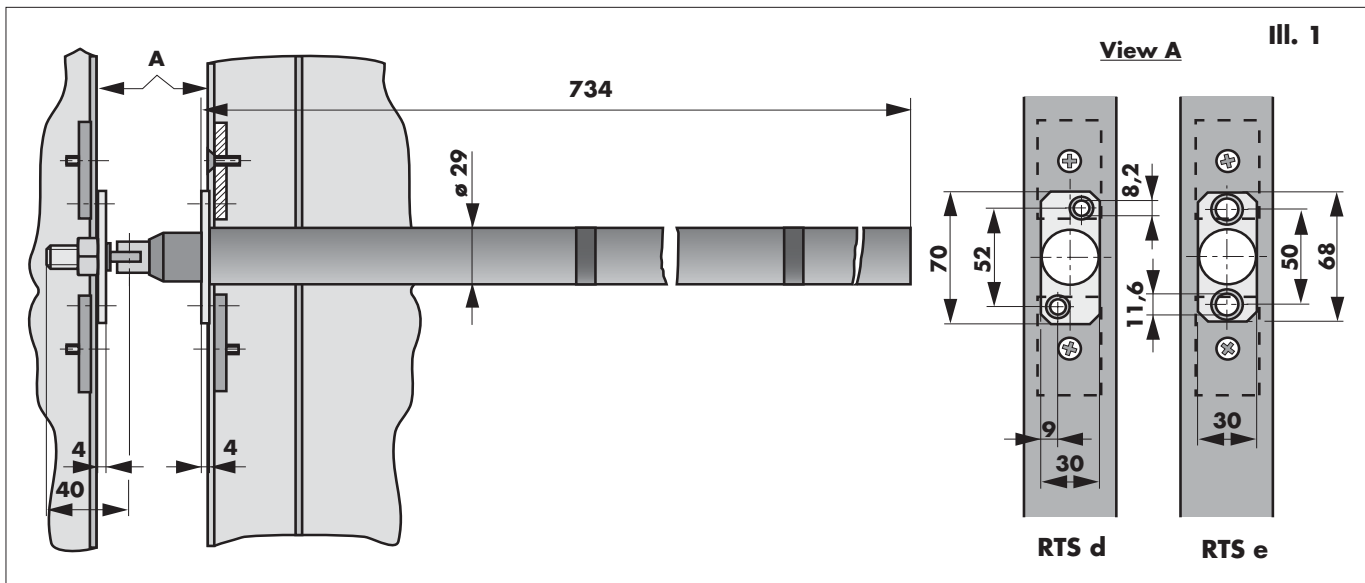
The RTS tube door closer is inserted into the door. It is connected to the counter plate, that is fixed to the frame, by an elastic joint with integrated steel ropes. When the door is opened, the joint is pulled out and the closing spring (in the back part of the closer) is tensioned. The closing speed is controlled by the hydraulic damping cylinder in the middle of the tube door closer. It is adjustable and can thus be adapted to different requirements.

Components of Delivery

Each tube door closer is delivered together with the necessary installation accessories:

- Counter plate to be fixed to the frame (same hole pattern as the front plate of the door closer)
- Eyelets with thread type A and B with self-locking coating (Only 1 piece is required for the installation. For the right choice see the next pages.)
- 1 bolt with groove
- 1 snap ring
- 1 hexagon socket screw key \varnothing 3 mm, min. 120 mm long, to adjust the closing speed

Dimensions



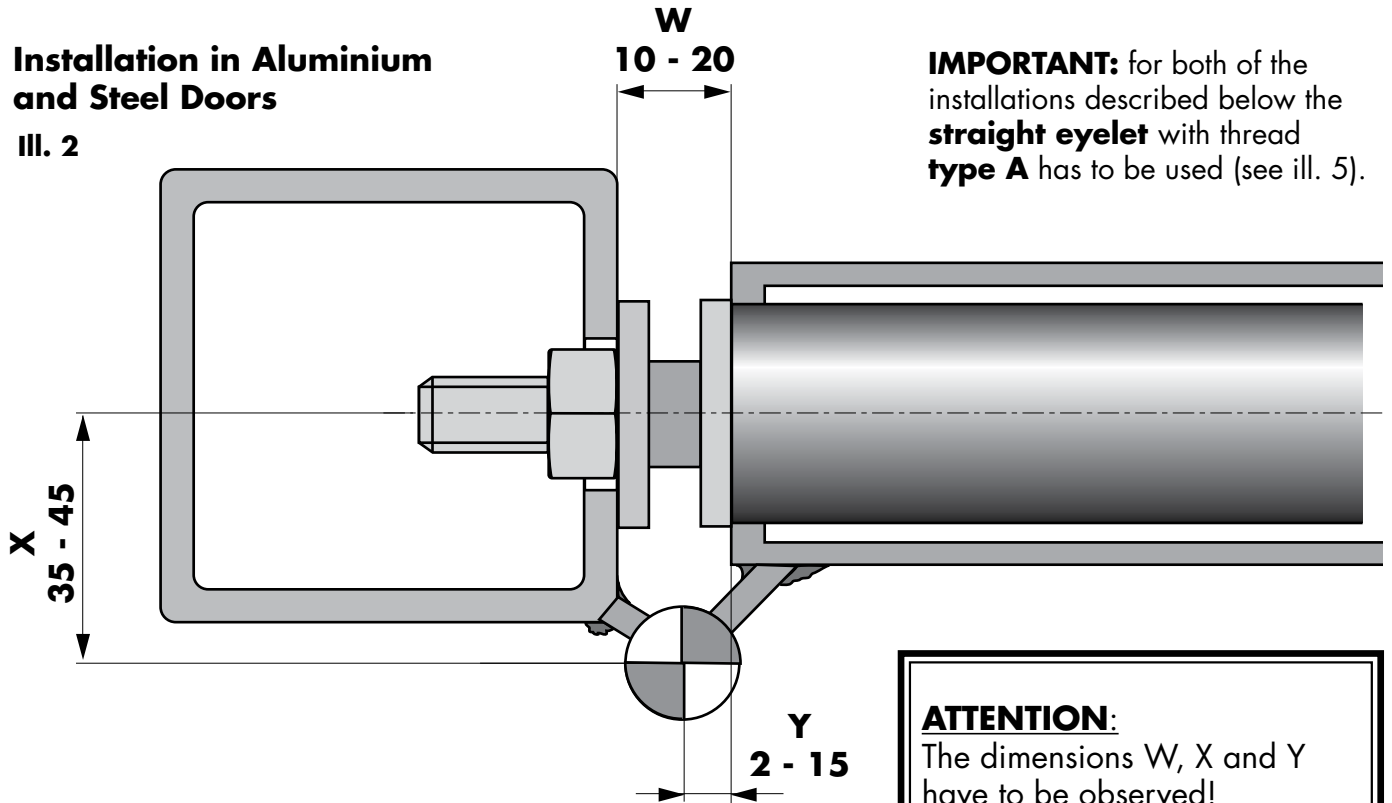
Order Information

RTS d tube door closer (long)	part no. 400520
RTS e tube door closer (long)	part no. 400529

Installation of the RTS Tube Door Closer Important Measures of the Hinges

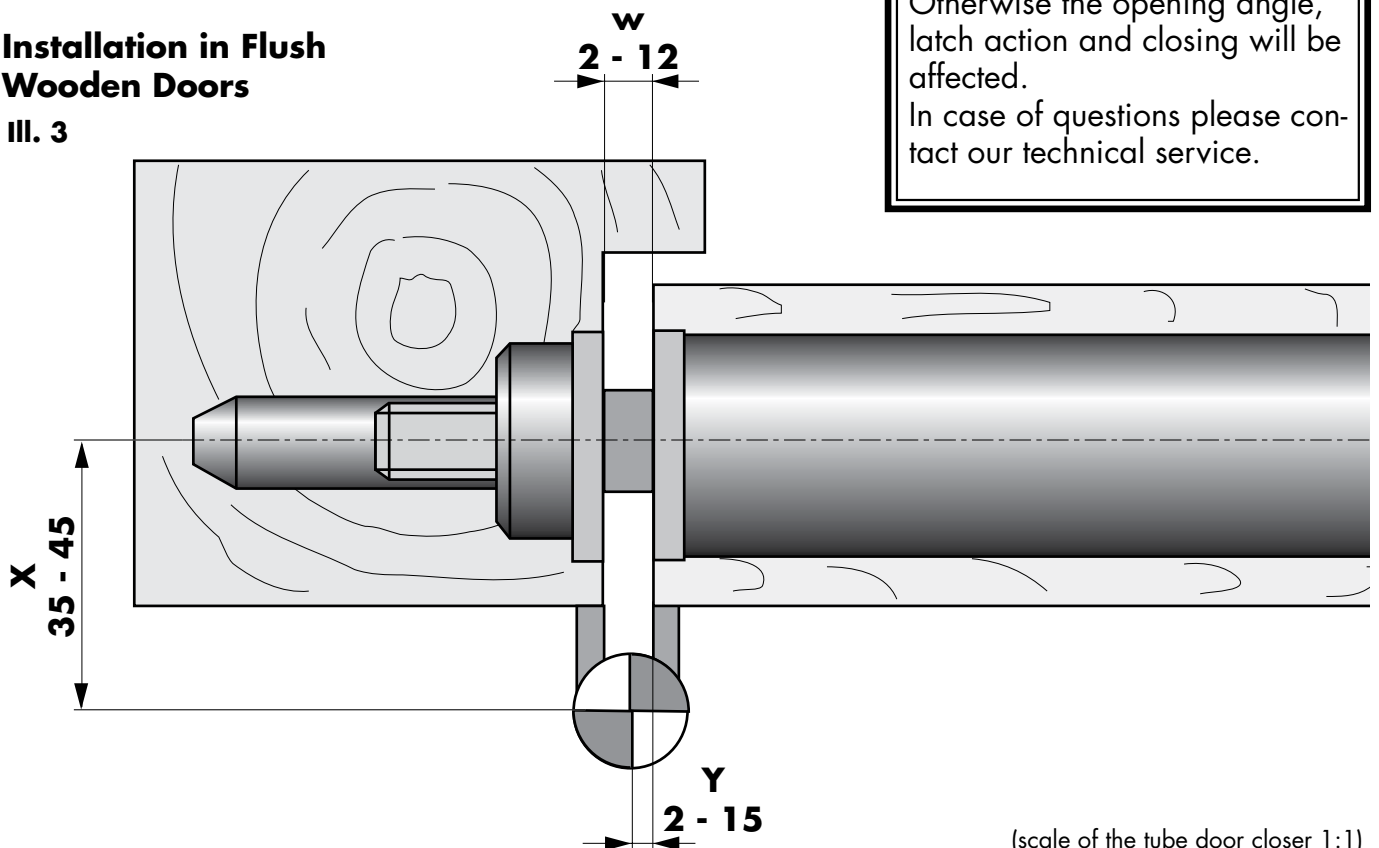
Installation in Aluminium and Steel Doors

III. 2



Installation in Flush Wooden Doors

III. 3

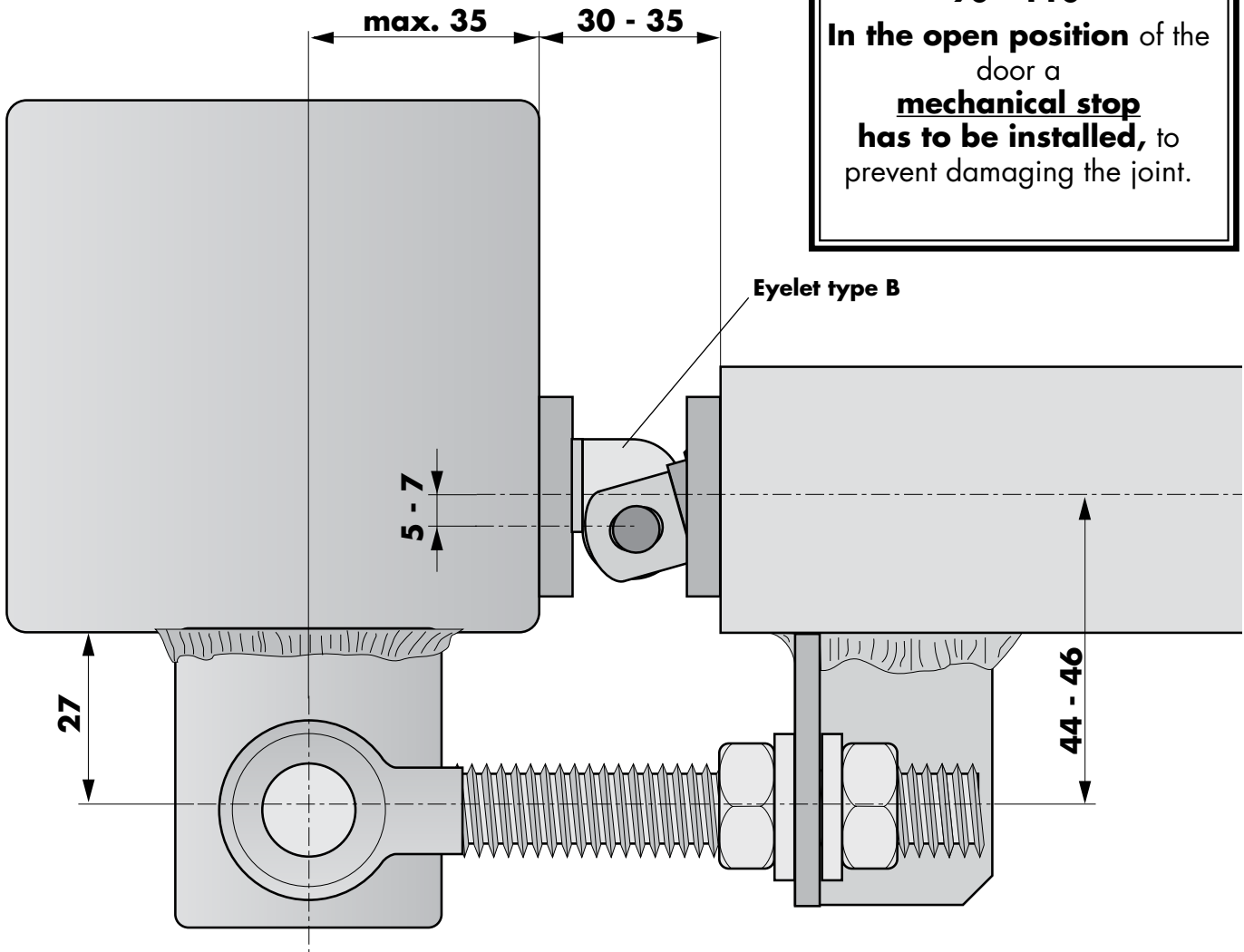


(scale of the tube door closer 1:1)

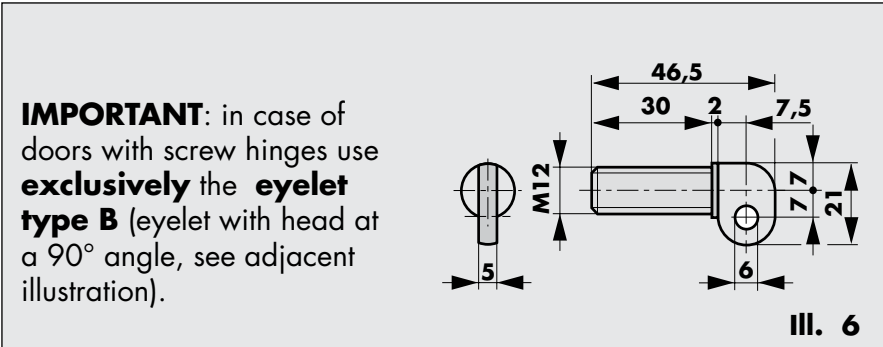
Installation of the RTS Tube Door Closer Important Measures of the Hinges (cont.)

Installation in Access Gates with Screw Hinges

III. 4



ATTENTION: maximum opening angle of doors with screw hinges: **90 - 110°**
In the open position of the door a **mechanical stop** has to be installed, to prevent damaging the joint.

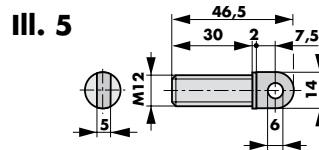


IMPORTANT: in case of doors with screw hinges use **exclusively** the **eyelet type B** (eyelet with head at a 90° angle, see adjacent illustration).

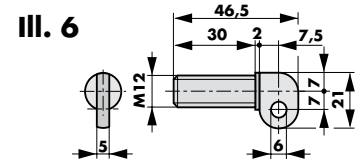
III. 6

Installation

IMPORTANT: Before starting the installation determine **which** of the two **eyelets** shown below you require (see also drawings on the two preceding pages). The **special cement coating** of the thread starts to harden right after it has been screwed into the counter plate for the first time. **Half an hour** later the **eyelet can no longer be moved**. Otherwise the eyelet could change its position and this could affect the function of the tube door closer.



Eyelet A - straight - for doors with normal hinges



Eyelet B - square angled - only for doors with screw hinges

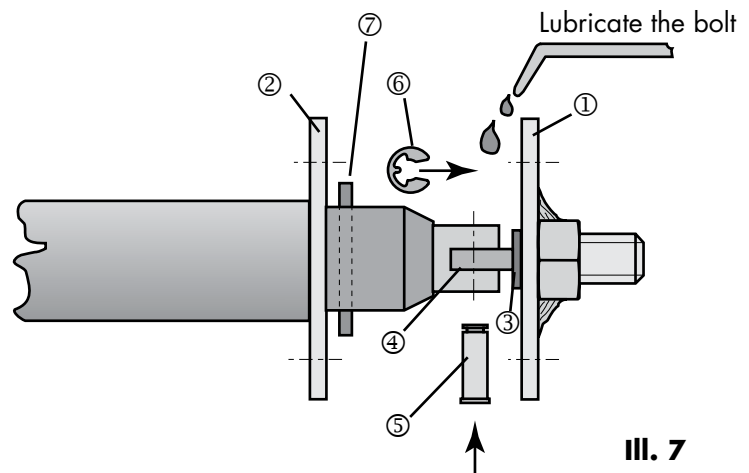
When this question has been settled, please take the **following steps**:

- 1)** Determine, **where** the tube door closer is to be **installed** in the door. In case of:
 - steel doors normally either in the top or bottom profile
 - aluminium doors in the bottom profile
 - wooden doors: type RTS v: usually in the middle between the hinges
type RTS t/u: at the top or bottom of the door

2) Prepare the door and the frame for the RTS tube door closer and the counter plate ①.

The exact dimensions of the holes are to be found in ill. 1 on page 02.028.00. If the material of the door and/or frame is not thick enough for a secure fixing, additional reinforcement plates or threaded inserts should be provided.

Make sure that the front plate ② of the RTS tube door closer and the counter plate ① are mounted at exactly the same height and that they sit exactly opposite when the door is closed (no lateral displacements).



NOTE: if the gap between door and frame is less than 10 mm, front and counter plate have to be imbedded. In case of a gap of more than 20 mm the plates have to be lined.

3) Insert the door closer into the door and fix it.

RTS d: 2 pcs. of M6 or M8 countersunk head screws

RTS e: 2 pcs. of M8 or M10 countersunk head screws

RTS t/u: 4 M5 or M6 countersunk head screws or 6 mm countersunk head screws for wood

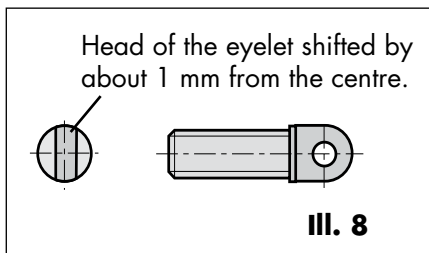
RTS v: 6 pcs. of 5 or 6 mm countersunk head screws for wood

ATTENTION: Please make sure the **longitudinal groove** in the plastic joint (see ill. 9) is on the side of the tube door closer NOT facing the hinge. Otherwise it is not accessible to adjust the speed.

4) Fix the counter plate ① to the frame (screws see point 3).

5) Screw the eyelet ③ **into the counter plate** ①.

ATTENTION: before doing this, please determine under any circumstances which of the two eyelets you need (see preceding pages).



The head of the eyelet A is slightly asymmetric (see ill. 5 at the left). It thus allows to compensate for small differences in height between the door closer and the counter plate. The **latch action** can be adjusted by screwing the eyelet ③ more or less into the counter plate (to get a latch action: eyelet reaches about 15 - 17 mm - measured from the middle of the hole of the eyelet - into the front tube of the RTS - when the door is closed).

IMPORTANT: To prevent twisting the thread of the eyelet is treated with a special cement coating, that hardens 30 minutes after the eyelet has been screwed into the counter plate for the first time. Therefore all adjustments must be **finished within these 30 minutes**.

6) Open the door until the head of the eyelet reaches into the fork ④ of the joint of the tube door closer. Insert the bolt ⑤ from below into fork and eyelet and secure it at the top with the included snap ring ⑥.

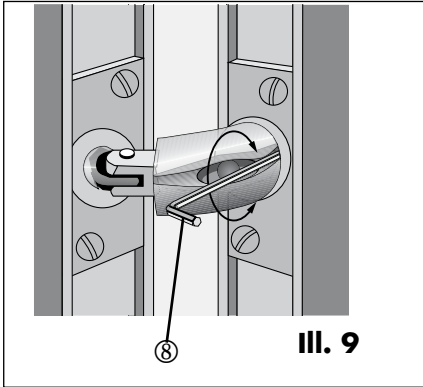
(If the holes of fork and eyelet do not align correctly, bend the fork with a screw driver carefully towards the eyelet.)

Remove the securing pin ⑦ from the joint (keep it for further possible adjustments). The tube door closer is now ready to work.

ATTENTION: Before doing any adjustment of the final latch by turning the eyelet it is absolutely necessary to first remove the bolt ⑤ from the eyelet and fork. Otherwise the steel ropes inside the plastic joint are going to be twisted and this would result in the rupture of the rope after a relatively short time. (Don't forget to firstly insert the securing pin ⑦ back into the joint in order to prevent it from retracting into the tube!)

7) Lubricate the bolt ⑤. This will lengthen the life of the door closer considerably.

Adjusting the Closing Speed



1) **Open** the **door** between 45° and 90°.

2) Insert the long arm of the **hexagon socket screw key** ® into the inclined boring of the plastic joint until the key catches.

3) The default setting of the damping is in the middle. The complete adjusting range is about three revolutions.

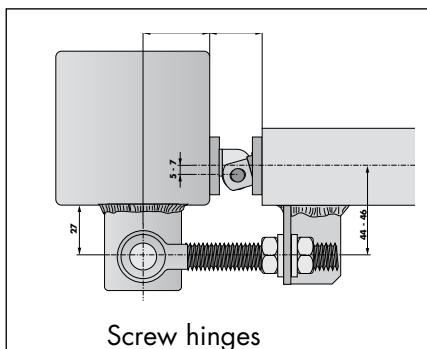
To prevent damaging and unintended complete unscrewing, the adjustment device is secured by a snap ring. When reaching the final position you will feel a higher resistance.

Turning it clockwise will reduce the speed = stronger damping.

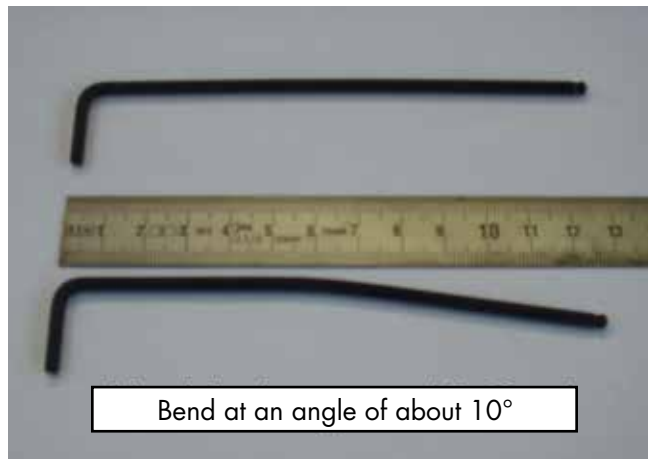
Turning it anti-clockwise will increase the speed = less damping.

ATTENTION: check the closing speed after each half turn of the key.

Special Feature with Doors with Screw Hinges



In case of doors with screw hinges it may happen that the hexagon socket screw key catches not properly, because the plastic joint is not bent as much as with normal hinges. To be anyhow able to adjust the RTS, you have to bend the hexagon key ® (ø 3 mm, min. 120 mm long) slightly as shown in the illustrations 10 and 11).



Bend at an angle of about 10°

III. 11



Maintenance

Do not forget to lubricate the bolt on installation.
The joint should be greased at least once a year with a sticking lubrication spray.
To do this open the door completely and spray the now visible joint. Repeat this after having closed the door two to three times.

Service Diagnostics

The following advices should help you if the door closer does not work properly right from the start.

1) Boring for the hexagon key not to be found

- The door closer has been installed with the groove (see ill. 6) looking towards the hinges (see installation instructions point 3). Remove the door closer (make sure you insert the securing pin back into the joint before removing the bolt from eyelet and fork). Turn the door closer by 180° and install it again.

Exception: types RTS - t and RTS - u: the front plate of these types is only one-sided and therefore the door closer has to be exchanged against the other type (either t or u).

2) Door does not close completely

- Front plate and counter plate touch when the door is closed. Embed one or both of the plates (see installation instructions point 2).

- Eyelet of the counter plate gets jammed at the front tube when the door is closing. Screw the eyelet farther into the counter plate. Check whether counter plate and front plate sit exactly opposite each other (see dimension X in ill. 2/3 and the installation height in door and frame).

- Joint enters too far into the tube of the door closer. The eyelet has not been screwed far enough into the counter plate.

3) Door cannot be opened completely

- Front and/or counter plate have been embedded too much (dimension Y more than 15 mm; see ill. 2/3). Line the plate(s) or in question of larger quantities ask for special designs.

- Distance between the axis of the door closer and the pivot of the door is too large (see ill. 2/3): dimension X: max. 45 mm

If possible, reduce dimension X by changing the installation.

Handling Instruction:

Never push the door closed! There is the risk that the joint buckles and gets damaged.